Community-Level Interventions Are Needed to Prevent New HIV Infections

For more than a decade, behavioral, social, and public health scientists have devoted considerable attention to the development of interventions to help people change sexual and injection-related practices that confer risk for contracting HIV infection. Most of these research-based interventions have involved intensive face-to-face programs that are delivered to individuals in one-on-one sessions or small-group workshops and that provide AIDS education, enhance motivation for behavior change, and teach risk reduction skills. These face-to-face counseling programs have been successful with gay men,[1–3] women,[4–6] adolescents,[7–9] patients in sexually transmitted disease (STD) clinics,[10–11] and other persons at risk for HIV. Indeed, research that supports the effectiveness of culturally-tailored, small-group interventions based on social-cognitive behavior change theory is now so convincing that these programs are considered ready for adoption by service providers.[12]

Face-to-face interventions are an important part of the repertoire of HIV prevention programs. Clients who go to STD clinics or HIV testing sites, health service settings, social service agencies, and drug treatment programs, and persons seen in schools, criminal justice systems, mental health, or other human service agency settings, need and deserve high-quality, science-based counseling to avoid risk for HIV infection. However, face-to-face counseling interventions are only one part of an overall repertoire of HIV prevention activities. Large-scale, community-level HIV prevention interventions that are directed toward vulnerable populations must also be undertaken, but these have been described much less often in the literature. The report on the Centers for Disease Control and Prevention (CDC) AIDS Community Demonstration Project in this issue of the Journal[13] joins a still-small number of controlled community-level HIV prevention interventions undertaken in the United States.[14–18] However, its success adds to our confidence that sexual and injection-related risk behavior practices can be changed through theory-based, culturally-tailored approaches directed toward community population segments that remain at risk for HIV infection.

Community-level HIV prevention approaches that attempt to change the norms, attitudes, collective self-efficacy, and risk behavior practices in populations vulnerable to AIDS are essential for a variety of reasons. People contract HIV infection as a result of sexual and drug use activities that take place in their day-to-day lives in the community. Changing communities to make them safer places is a logical direction for HIV prevention efforts. No matter how effective intensive counseling or small-group risk reduction interventions are, face-to-face approaches alone will never be able to reach the large numbers of people who remain at risk for contracting HIV. Community-level and population-focused interventions have the potential to be cost-effective by virtue of their scope.

Counseling Individuals or Changing Communities?

Most face-to-face HIV prevention programs studied to date in the research literature have drawn heavily on principles of individual psychology in their conceptualization. They presume that if we can only counsel individuals and instill enough AIDS risk knowledge, create positive enough attitudes and strong enough intentions toward condoms, and capably teach clients the right risk-reduction skills, people will then be able to make and durably sustain risk-reduction behavior changes. However, one-shot face-to-face interventions, even when capably undertaken, are unlikely to be sufficient to help people durably sustain changes in behavior practices as strong and complex as sexuality or drug use. Although "change the individual" approaches can help many people enact initial risk-reduction steps and make short-term risk behavior changes, long-term maintenance of HIV-protective behavior is likely only when peer group social norms, relationships, the environment, and public health policies support personal behavior change efforts.[19] This requires that we change communities and their norms, not just counsel individuals.

The focus on changing the social milieu rather than just the individual is not unique to HIV prevention. Smoking rates in some segments of the American population have declined, not because smokers in massive numbers enrolled in intensive "quit smoking" classes, but because social norms concerning smoking have changed. In a similar sense, those of us in the HIV prevention research field should acknowledge our past successes in developing intensive face-to-face interventions that can help individuals make risk-reduction behavior changes and now press forward to improve our understanding of how to create broader community-level models that will reach more people and help them to better maintain behavior change.

The CDC AIDS Community Demonstration Project described in this issue[13] employed a number of intervention elements, but central among them was the sustained delivery of messages to members of the target population that modeled HIV protective steps, strengthened norms to reinforce the benefits of avoiding risk, and engendered confidence that risk reduction can be mastered. It is important that many of these messages were delivered by peer volunteers. In common with other past community-level HIV prevention trials,[14–18] the CDC study's findings provide evidence that HIV prevention endorsement messages, modeled and delivered in outreach fashion by members of one's own social reference peer group, can reduce risk behavior levels in community populations.

Research trials of community-level interventions in health behavior areas other than AIDS have not always shown strong positive effects on population risk behavior. Many of these interventions, however, also relied primarily on media and nonpersonal marketing approaches. A factor responsible for the success of community-level prevention approaches in the HIV arena may be the involvement and mobilization of credible members of the target population itself in the delivery and endorsement of risk-reduction messages to their own friends, acquaintances, neighbors, and peers. Social learning theory tells us that peers are important behavioral models who can establish and redefine population norms, including those of condom use and drug injection practices. Changing social norms to convey that HIV risk reduction is an accepted value within persons' own social reference group and instilling the belief that risk reduction is also a personally-attainable goal will better enable people to initiate protective steps and receive the support needed to sustain their efforts.

Editor's Note. See related article by the CDC AIDS Community Demonstration Projects Research Group (p 336) in this issue.

Challenges in the Development of Community-Level Interventions

At the same time, early successes in community-level HIV prevention interventions also raise new challenges concerning how to improve these approaches. Several especially merit our attention.

All HIV prevention community interventions reported to date in the literature, regardless of their level of statistical outcome analysis, have examined the risk behavior characteristics of target population members as study endpoints. This is certainly appropriate, because the behavior of individuals either creates HIV risk or protects from risk. However, community-level HIV prevention programs—if they are to have truly enduring effects—should do more: they should also durably change the services, social structures, resources, capacities, and policies of a community in ways that can sustain risk reduction. Community-level interventions with this broader focus, in addition to the promotion of individuals' behavior change, might also try to bring about change in key indicators of community AIDS safety. Examples of such indicators include the number, quality, funding levels, and performance of effective HIV prevention programs being undertaken by service providers in a community; ease of access to HIV testing, condoms, and clean needles by persons at risk; the availability of quick-entry, high-quality HIV health care, secondary prevention case management, and substance use treatment services; and public policies that facilitate the success of HIV prevention efforts. We currently know much more about the assessment of individuals' HIV-risk behavior characteristics than we do about how to measure change in the HIV prevention fabric of a community. However, interventions that expand their focus to enhance a community's HIV protective characteristics are needed in the field.

To achieve this goal, we need to learn much more about communities that remain vulnerable to AIDS. It is common to speak of communities—whether the gay community, the inner-city community, the injection drug user community, or others—as though they are homogeneous entities. They are not. All are composed of multiple segments and, in fact, of many different social networks that have varying cultures, norms, behavior patterns, risk issues, and vulnerability to HIV infection. A few years ago, some people believed that the threat of new HIV incidence in the gay community was ending because of the behavior changes made by older, white, and urban gay men. However, a finer-grained analysis would have shown that risk behavior levels were—and remain—far higher in a different community segment, young and ethnic minority men who have sex with men. Viewing communities in terms of the risk of identifiable segments and types of social networks should allow us to much better tailor, focus, and deliver community-level HIV prevention interventions to those at greatest risk. It may also allow us to better understand what community characteristics serve to increase the vulnerability to HIV among population members and what community characteristics seem to protect against risk.

Conclusions

Community-level HIV prevention interventions that prove successful and sustainable cannot be imposed on a population. They must grow from—and be owned by—the population segments one hopes to reach. It is now a standard and accepted practice when developing an HIV prevention intervention to solicit input, recommendations, and advice from members of the community population toward which the intervention will be directed. This is essential. However, it is possible to push our prevention paradigms further and view members of at-risk communities not just as the recipients of an intervention but also as partners in the intervention's delivery. There has long been a tendency in our field to view people as clients in need of health promotion services that are developed and delivered by external agents. We also often view communities vulnerable to AIDS in terms primarily of their problems. Yet, these same communities have many strengths, the most important of which may be the altruistic desire of many community members to actively join in HIV prevention efforts to protect others.

We have long been impressed by how often people want to "do something" to educate others and help stop AIDS in their communities. The first community-level HIV prevention programs undertaken in the country were grassroots efforts initiated by members of the gay communities in large cities to alert and educate others about the disease. As the HIV epidemic threatens additional and even more disenfranchised communities in the new millennium, we will do well to remember some HIV prevention lessons learned from the gay communities of San Francisco and New York nearly 15 years ago. Ordinary people will, if asked and if properly assisted, do extraordinary things by taking on roles as AIDS prevention advocates to others in their own communities, whether as volunteer peer advocators,[17] popular-opinion leaders,[14–16] or, as in the CDC study,[13] volunteers describing AIDS prevention role model stories to motivate their friends, neighbors, and acquaintances to take protective steps against HIV. There is great power, even in disenfranchised communities, that can be activated when community members themselves are mobilized and assisted to actively support one another's HIV risk-reduction efforts. It is our job, as public health professionals and researchers, to develop new intervention paradigms that can work with community members in ways that focus, energize, and support this power.

Finally, the development of effective community-level HIV prevention interventions can do more than prevent new HIV infections. The same behavior changes that will protect against HIV can also protect against almost the entire range of other sexually-transmitted diseases—themselves diseases of epidemic proportions in much of the country—as well as the problems and social costs of early or unwanted pregnancy and drug abuse. To the extent that community-level HIV prevention interventions are developed, studied, and implemented, public health benefits extending beyond reductions in HIV incidence can be anticipated.

HIV prevention approaches need to be undertaken at many levels. As Coates and colleagues have pointed out,[20] these approaches include interventions directed toward individuals, couples, families, social structures and social institutions, communities, policies, and society as a whole. Although the number of persons contracting new HIV infections is now lower than during the peak HIV-incidence years, those persons who remain vulnerable are also more disenfranchised, younger, and harder to reach than ever before. Community-level interventions will be an increasingly important part of our repertoire of HIV prevention approaches to reach these vulnerable populations, and the further development of these interventions is an essential public health priority. □

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